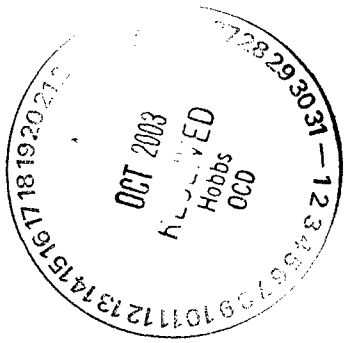
Larson & Associates, Inc.
Environmental Consultants



October 14, 2003

VIA FACSIMILE: (505) 476-3462

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Remediation Report and Request for Closure of the D. F. Fergason Tank Battery, U. L. H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East, Lea County New Mexico

Dear Mr. Price:

ChevronTexaco Exploration and Production (Chevron Texaco), as successor to Texaco Exploration and Production, Inc. (Texaco), retained Larson & Associates, Inc. (LA) to supervise remediation of a tank battery (Site) located at the D. F. Fergason Lease in unit letter H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East, Lea County, New Mexico. Remediation of the tank battery occurred in conjunction with remediation of an emergency pit that was located east of the tank battery. Figure 1 presents a location and topographic map. Figure 2 presents a drawing of the Site.

CrownQuest Operating, LLC (CrownQuest) operated the tank battery until about April 2003 when the Site was abandoned, and equipment was removed. ChevronTexaco acquired the Site in May 2003 to facilitate remediation of the emergency pit. Approximately two (2) feet of soil was removed from the surface of the tank battery, and hauled to the ChevronTexaco centralized waste management facility (NM-02-0012) located in Section 17, Township 24 South, Range 36 East, Lea County, New Mexico. Further excavation of the east side of the tank battery occurred during excavation of the emergency pit, and the area was excavated from ten (10) to approximately twenty-five (25) feet below ground surface (bgs). Environmental Lab of Texas, Inc. (ELTI) located in Odessa, Texas, analyzed soil samples 1 through 7 that were collected from the sloped area. The samples were analyzed for benzene, toluene, ethylbenzene, xylene (collectively referred to as BTEX) using method SW-846-8021B, total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) using method SW-846-8015, and chloride using method SW-846-9253. The laboratory reported no concentrations of benzene, total BTEX or TPH above the test method detection limits. Chloride ranged from less than 20 milligrams per kilogram (<20.0 mg/kg) in sample 5 to 230 mg/kg in sample 1. The analysis was included in the closure report for the emergency pit dated August 28, 2003 (*"Preliminary Report and Closure Request for Emergency Pit Excavation, D.F. Fergason Lease, U.L. H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East, Lea County, New Mexico"*).

On June 23, 2003, soil samples were collected from the Site. Thirty-five (35) samples (111 through 146) were collected about every twenty-five (25) feet using a stainless steel sample trowel. The samples were placed in clean glass sample jars, labeled, chilled in an ice chest, delivered under chain-of-custody control to ELTI, and analyzed for BTEX, TPH (GRO and DRO), and chloride using methods described earlier. A duplicate of samples 119, 125, 132, 133,

ChevTex - 216419
facility - fPAC0605449044 application - pPAC0605449159

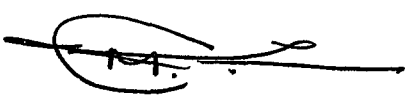
507 North Marienfeld, Suite 202 ◆ Midland, Texas 79701 ◆ Ph. (915) 687-0901 ◆ Fax (915) 687-0456

136 and 137 was collected for headspace analysis using the ambient temperature headspace (ATH) method. The ATH method is a qualitative analysis that requires filling a sample jar approximately ¾ full with soil, sealing the top of the container with a layer of aluminum foil, replacing the lid, and using a photoionization detector (PID) to measure the concentration of ionizable hydrocarbons in the vacant headspace. The PID was passed through the aluminum foil after the sample had reached ambient temperature (approximately 15 to 30 minutes). The PID displayed the concentration of ionizable hydrocarbon in the headspace sample in parts per million (ppm). The PID readings ranged from 0.8 ppm (samples 136 and 137) to 50.0 ppm (sample 119). Table 1 presents a summary of the field and laboratory analysis. Figure 3 presents a detailed drawing of the Site. Laboratory reports for the analysis were included as an attachment to the dated August 28, 2003.

Referring to Table 1, benzene was not detected in any sample above the test method detection limit of 0.025 mg/kg. Total BTEX was only reported in samples 119 and 123 at 0.047 mg/kg and 0.053 mg/kg, respectively. The benzene and total BTEX concentrations are well below the New Mexico Oil Conservation Division (NMOCD) Recommended Remediation Action Level (RRAL) of 10 mg/kg and 50 mg/kg, respectively. Concentrations of TPH were generally less than 1,000 mg/kg, except in samples 113 (5,328 mg/kg), 126 (1,130 mg/kg), 131 (1,720 mg/kg) and 132 (1,090 mg/kg). Chloride was highest in sample 125, which reported a concentration 993 mg/kg. The concentration of chloride in soil samples collected from the sloped area near the east side of the Site did not report a concentration greater than 177 mg/kg (4) demonstrating that chloride decreased significantly with depth. The TPH in the samples from the sloped area also demonstrates decreasing concentrations with depth. No TPH was reported above the test method detection limit of 10 mg/kg in the samples from the sloped area. Depth-to-groundwater at the Site occurs at approximately 93 feet bgs, and an analysis of a groundwater sample collected by the NMOCD from a well located immediately north of the Site has demonstrated that groundwater has not been impacted. Based on the laboratory analysis and demonstrations, ChevronTexaco requests that the NMOCD grant closure of the tank battery without any further remediation. The excavated area will be filled with clean soil to the existing grade. Please call Mr. Scott Toner with ChevronTexaco at (432) 687-7318, you or myself at (432) 687-0901, may email stoner@chevrontexcaco.com or mark@Laenvironmental.com.

Sincerely,

Larson and Associates, Inc.



Mark J. Larson, CPG, CGWP
President

Encl.

cc: Scott Toner - ChevronTexaco
Paul Sheeley – NMOCD District I

Tables

Table 1
Summary of Laboratory Analysis of Soil Samples
D.F. Fergason Tank Battery
Unit Letter H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East
Lea County, New Mexico

Sample Number	Sample Location	Sample Date	Sample Depth (Feet BGS)	PID (ppm)	Benzene (mg/kg)	BTEX (mg/kg)	GRO C6 - C12 (mg/kg)	DRO C12 - C35 (mg/kg)	TPH C6 - C35 (mg/kg)	Chloride mg/kg
S-111	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	47.3	47.3	177
S-112	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	34.7	34.7	<20.0
S-113	West TB	24-Jun-03	2	---	<0.025	<0.125	<50.0	1130	1130	<20.0
S-114	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	285	285	<20.0
S-115	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	224	224	<20.0
S-116	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	<10.0	<20.0	<20.0
S-117	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	<10.0	<20.0	<20.0
S-118	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	<10.0	<20.0	53.2
S-119	West TB	24-Jun-03	2	50.0	<0.025	0.047	<10.0	288	288	142
S-120	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	158	158	<20.0
S-121	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	85.0	85.0	<20.0
S-122	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	90.0	90.0	<20.0
S-123	West TB	24-Jun-03	2	---	<0.025	0.053	<10.0	90.8	90.8	106
S-124	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	42.5	42.5	35.4
S-125	West TB	24-Jun-03	2	41.0	<0.025	<0.125	<10.0	239	239	993
S-126	West TB	24-Jun-03	2	---	<0.025	<0.125	88.3	5240	5328	248
S-127	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	445	445	177
S-128	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	286	286	106
S-129	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	39.2	39.2	35.4
S-130	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	27.4	27.4	230
S-131	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	1720	1720	284
S-132	West TB	24-Jun-03	2	21.0	<0.025	<0.125	<10.0	1090	1090	390
S-133	West TB	24-Jun-03	2	21.0	<0.025	<0.125	<10.0	300	300	284

Notes: Laboratory analysis performed by Environmental Lab of Texas, Inc., Odessa, Texas

1. BGS: Denotes sample depth in feet below ground surface
2. ppm: Field headspace reading in parts per million using a photoionization detector
3. mg/kg: Milligrams per kilogram
4. --: No data available
5. <: Less than test method detection limit

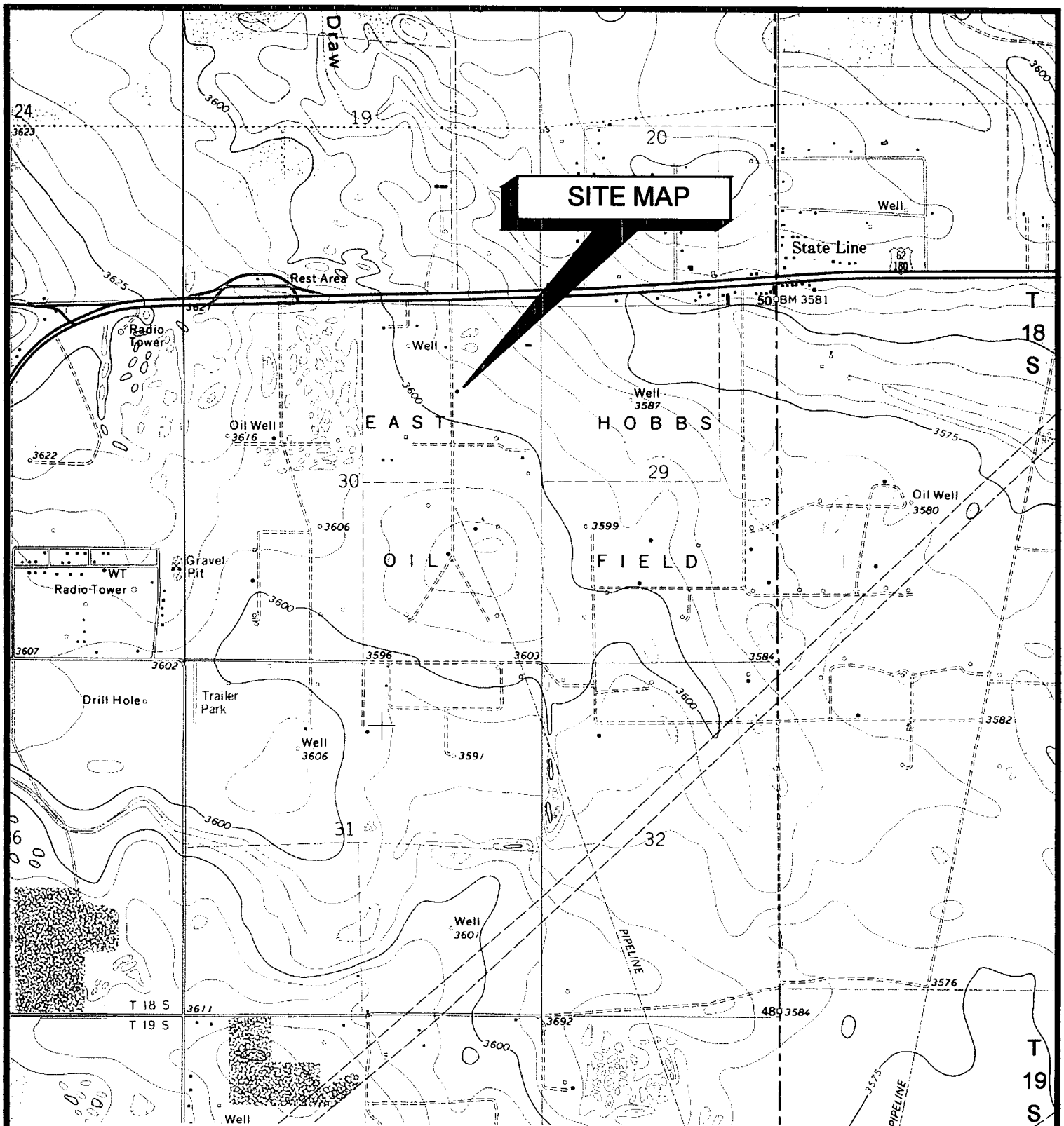
Table 1
Summary of Laboratory Analysis of Soil Samples
D.F. Fergason Tank Battery
Unit Letter H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East
Lea County, New Mexico

Sample Number	Sample Location	Sample Date	Sample Depth (Feet BGS)	PID (ppm)	Benzene (mg/kg)	BTEX (mg/kg)	GRO C6 - C12 (mg/kg)	DRO C12 - C35 (mg/kg)	TPH C6 - C35 (mg/kg)	Chloride mg/kg
S-134	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	85.4	85.4	425
S-135	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	150	150	70.9
S-136	West TB	24-Jun-03	2	0.8	<0.025	<0.125	<10.0	36.8	36.8	727
S-137	West TB	24-Jun-03	2	0.8	<0.025	<0.125	<10.0	256	256	213
S-138	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	288	288	142
S-139	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	153	153	70.9
S-140	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	130	130	337
S-141	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	<10.0	<20.0	<20.0
S-142	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	104	104	709
S-143	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	130	130	780
S-144	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	243	243	88.6
S-145	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	38.6	38.6	35.4
S-146	West TB	24-Jun-03	2	---	<0.025	<0.125	<10.0	68.4	68.4	106

Notes: Laboratory analysis performed by Environmental Lab of Texas, Inc., Odessa, Texas

1. BGS: Denotes sample depth in feet below ground surface
2. ppm: Field headspace reading in parts per million using a photoionization detector
3. mg/kg: Milligrams per kilogram
4. --: No data available
5. <: Less than test method detection limit

Figures



TAKEN FROM U.S.G.S.
HOBBS EAST, TEX.-N. MEX. 1969
7.5' QUADRANGLES

SCALE: 1"=2000'

FIGURE #1

LEA COUNTY, NEW MEXICO

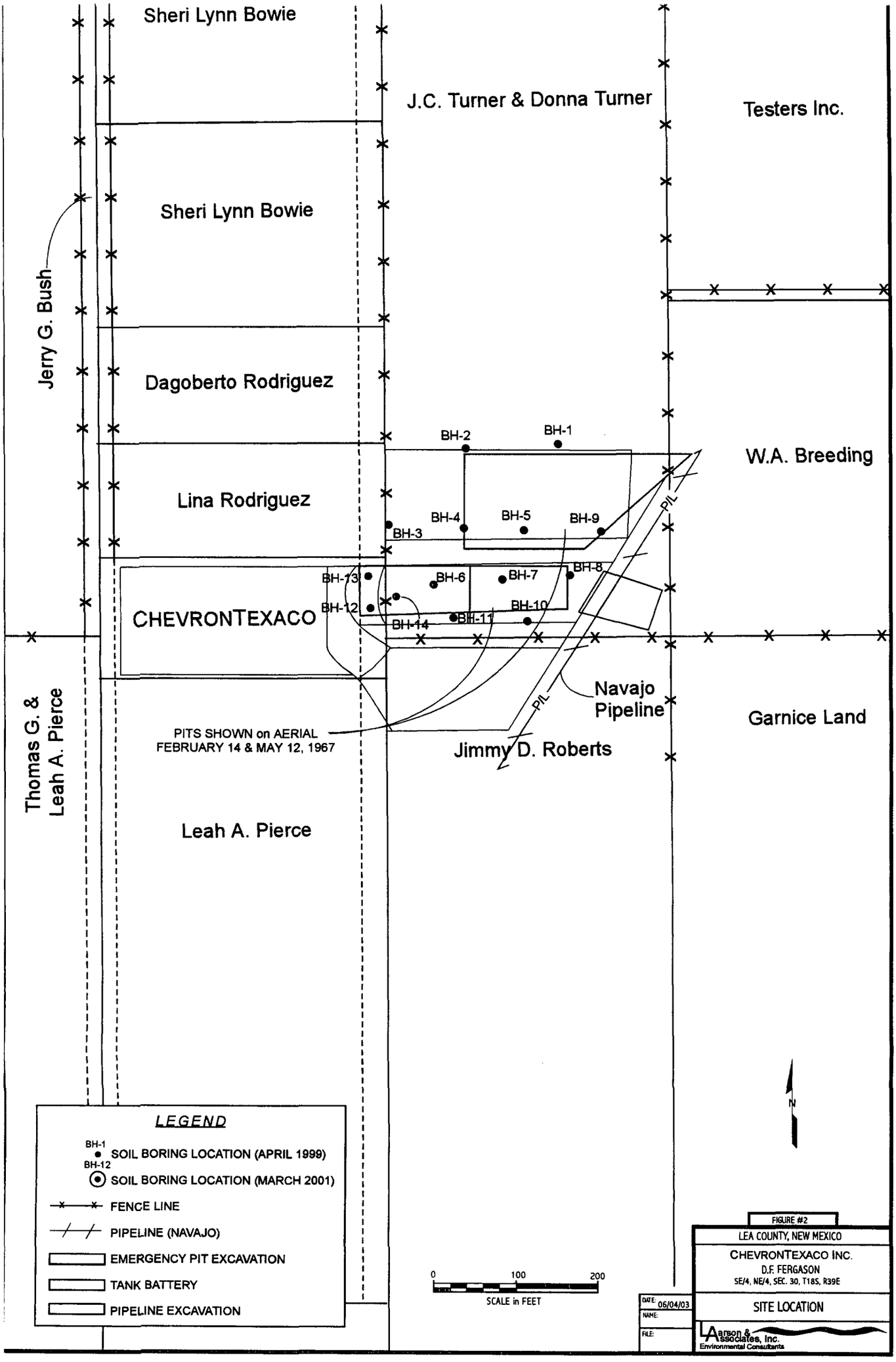
CHEVRONTEXACO INC.

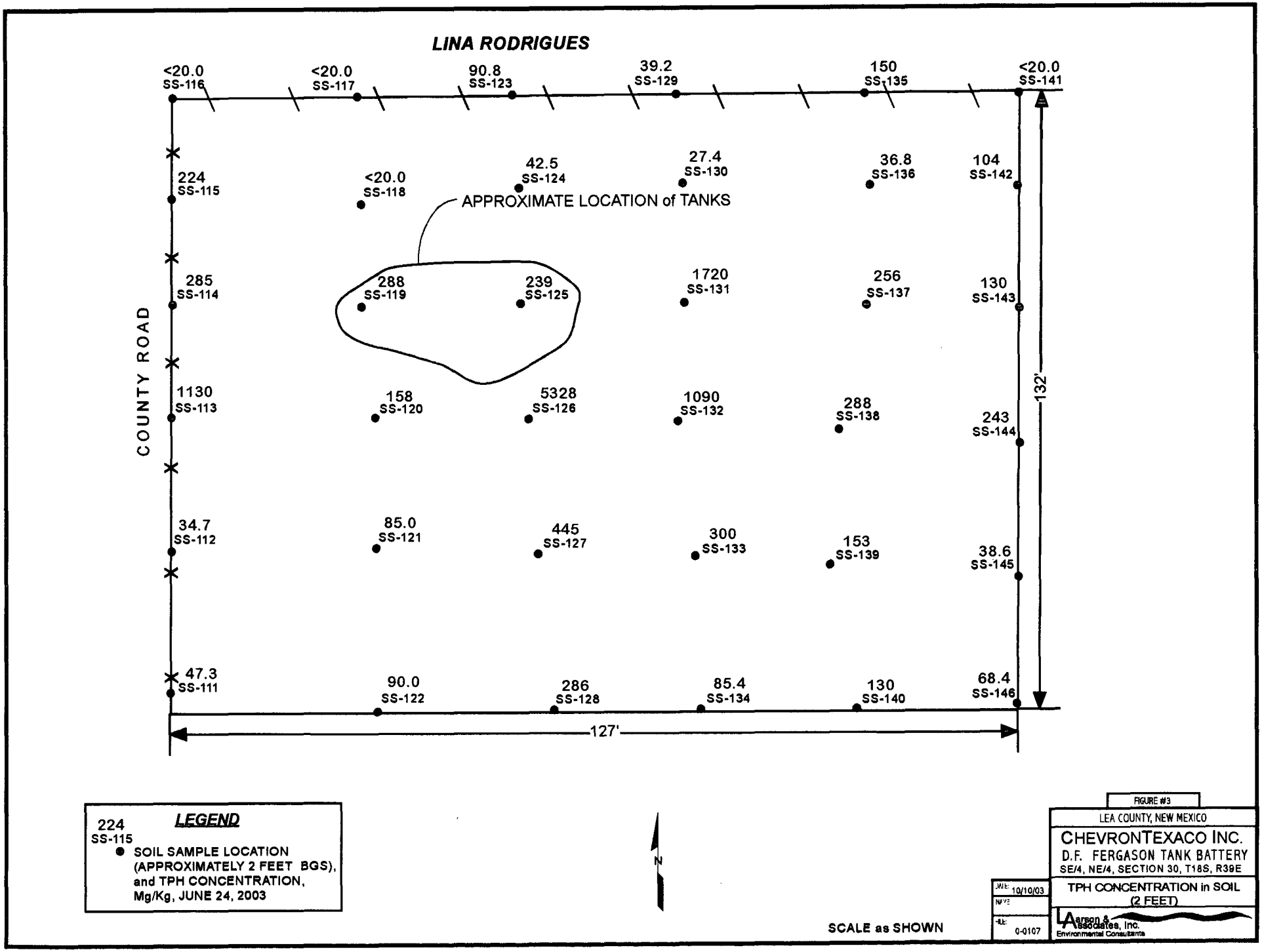
D.F FERGASON
SE/4, NE/4, SEC. 30, T18S,R39E

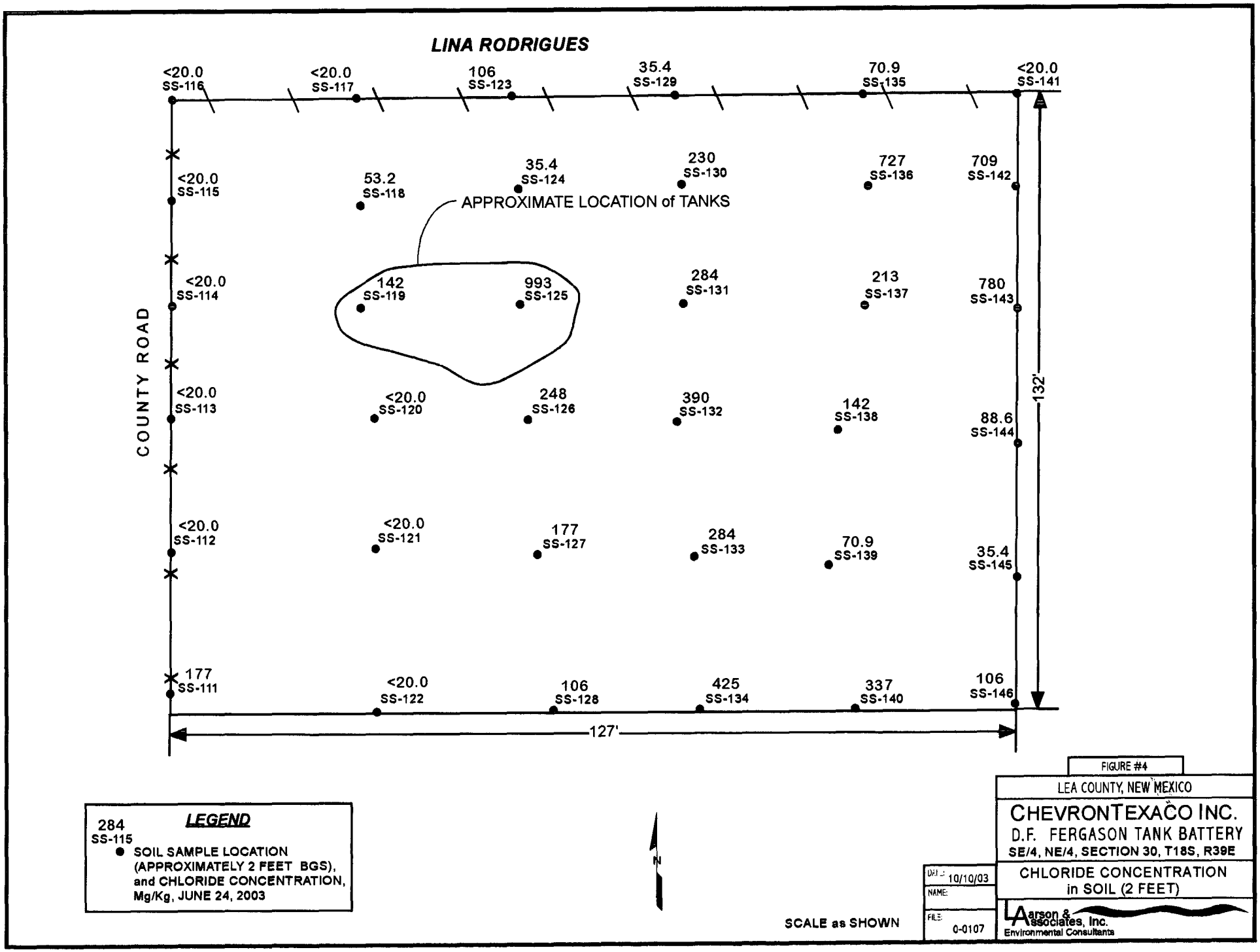
TOPOGRAPHIC MAP

DATE: 4/11/01
NAME:
FILE:

Larson & Associates, Inc.
Environmental Consultants


Sheri Lynn Bowie
J.C. Turner & Donna Turner
Testers Inc.
Sheri Lynn Bowie
Jerry G. Bush
Dagoberto Rodriguez
BH-2
BH-1
W.A. Breeding
Lina Rodriguez
BH-4
BH-5
BH-9
BH-3
P/L
BH-13
BH-6
BH-7
BH-8
CHEVRONTEXACO
BH-12
BH-10
BH-14
BH-11
Navajo
Pipeline
P/L
Garnice Land
PITS SHOWN on AERIAL
FEBRUARY 14 & MAY 12, 1967
Jimmy D. Roberts
Thomas G. &
Leah A. Pierce
Leah A. Pierce
LEGEND
BH-1 SOIL BORING LOCATION (APRIL 1999)
BH-12 SOIL BORING LOCATION (MARCH 2001)
FENCE LINE
PIPELINE (NAVAJO)
EMERGENCY PIT EXCAVATION
TANK BATTERY
PIPELINE EXCAVATION
N
0
100
200
SCALE in FEET
FIGURE #2
LEA COUNTY, NEW MEXICO
CHEVRONTEXACO INC.
D.F. FERGASON
SE/4, NE/4, SEC. 30, T18S, R39E
SITE LOCATION
DATE: 06/04/03
NAME:
FILE:
Larson & Associates, Inc.
Environmental Consultants


LINA RODRIGUES
<20.0 SS-116
<20.0 SS-117
90.8 SS-123
39.2 SS-129
150 SS-135
<20.0 SS-141
224 SS-115
<20.0 SS-118
42.5 SS-124
27.4 SS-130
36.8 SS-136
104 SS-142
APPROXIMATE LOCATION of TANKS
285 SS-114
288 SS-119
239 SS-125
1720 SS-131
256 SS-137
130 SS-143
COUNTY ROAD
1130 SS-113
158 SS-120
5328 SS-126
1090 SS-132
288 SS-138
243 SS-144
132'
34.7 SS-112
85.0 SS-121
445 SS-127
300 SS-133
153 SS-139
38.6 SS-145
47.3 SS-111
90.0 SS-122
286 SS-128
85.4 SS-134
130 SS-140
68.4 SS-146
127'
LEGEND
224
SS-115
SOIL SAMPLE LOCATION (APPROXIMATELY 2 FEET BGS), and TPH CONCENTRATION, Mg/Kg, JUNE 24, 2003
N
SCALE as SHOWN
FIGURE #3
LEA COUNTY, NEW MEXICO
CHEVRONTEXACO INC.
D.F. FERGASON TANK BATTERY
SE/4, NE/4, SECTION 30, T18S, R39E
TPH CONCENTRATION in SOIL (2 FEET)
DATE: 10/10/03
DWG:
FILE: 0-0107
Larson & Associates, Inc.
Environmental Consultants


LINA RODRIGUES
<20.0 SS-116
<20.0 SS-117
106 SS-123
35.4 SS-129
70.9 SS-135
<20.0 SS-141
<20.0 SS-115
53.2 SS-118
35.4 SS-124
230 SS-130
727 SS-136
709 SS-142
APPROXIMATE LOCATION of TANKS
<20.0 SS-114
142 SS-119
993 SS-125
284 SS-131
213 SS-137
780 SS-143
COUNTY ROAD
<20.0 SS-113
<20.0 SS-120
248 SS-126
390 SS-132
142 SS-138
88.6 SS-144
132'
<20.0 SS-112
<20.0 SS-121
177 SS-127
284 SS-133
70.9 SS-139
35.4 SS-145
177 SS-111
<20.0 SS-122
106 SS-128
425 SS-134
337 SS-140
106 SS-146
127'
LEGEND
284
SS-115
SOIL SAMPLE LOCATION (APPROXIMATELY 2 FEET BGS), and CHLORIDE CONCENTRATION, Mg/Kg, JUNE 24, 2003
N
SCALE as SHOWN
FIGURE #4
LEA COUNTY, NEW MEXICO
CHEVRONTEXACO INC.
D.F. FERGASON TANK BATTERY
SE/4, NE/4, SECTION 30, T18S, R39E
CHLORIDE CONCENTRATION in SOIL (2 FEET)
DATE: 10/10/03
NAME:
FILE: 0-0107
Larson & Associates, Inc.
Environmental Consultants